

CLAIMS:

1. A method to perform routing in a network, comprising:
receiving a packet at a network node;
determining whether said packet requires advanced routing services; and
sending said packet to an advanced routing services provider.
2. The method of claim 1, wherein said sending is performed over a virtual connection.
3. The method of claim 2, wherein said virtual connection is secure.
4. The method of claim 1, further comprising:
receiving said packet with advanced routing information; and
sending said packet to another network node using said advanced routing information.
5. A method to perform routing in a network, comprising:
receiving a packet at a network node;
determining whether said packet requires advanced routing services;
sending a request for advanced routing information to an advanced routing services provider;
receiving said advanced routing information; and

routing said packet using said advanced routing information.

6. The method of claim 5, wherein said sending and receiving are performed over a virtual connection.

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7. The method of claim 6, wherein said virtual connection is secure.

8. A method to perform routing in a network, comprising:
receiving a packet and a request for advanced routing information from an
intermediate node;
determining a packet classification for said packet;
retrieving advanced routing information corresponding to said packet
classification; and
routing said packet using said advanced routing information.

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9. The method of claim 8, wherein said packet is received and routed using a virtual connection.

10. The method of claim 8, wherein said virtual connection is secure.

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11. The method of claim 8, wherein said retrieving comprises retrieving said routing information from a routing table.

12. A method to perform routing in a network, comprising:
receiving a request for advanced routing information for a packet from an
intermediate node;
determining a packet classification for said packet;
5 retrieving advanced routing information corresponding to said packet
classification; and
sending said advanced routing information to said intermediate node.
13. The method of claim 12, wherein said packet is received and routed using a
10 virtual connection.
14. The method of claim 13, wherein said virtual connection is secure.
15. The method of claim 12, wherein said retrieving comprises retrieving said routing
15 information from a routing table.
16. A method to perform advanced network services in a network, comprising:
receiving a request for an advanced network service for a packet from an
intermediate node over a first virtual connection;
20 performing said advanced network service for said packet; and
sending said packet over a second virtual connection.

17. The method of claim 16, wherein said first and second virtual connections are secure.

18. An article comprising:

5 a storage medium;

said storage medium including stored instructions that, when executed by a processor, result in performing routing in a network by receiving a packet at a network node, determining whether said packet requires advanced routing services, and sending said packet to an advanced routing services provider.

10 19. The article of claim 18, wherein the stored instructions, when executed by a processor, further result in sending said packet over a secure virtual connection.

15 20. The article of claim 18, wherein the stored instructions, when executed by a processor, further result in receiving said packet with advanced routing information, and sending said packet to another network node using said advanced routing information.

21. An article comprising:

a storage medium;

20 said storage medium including stored instructions that, when executed by a processor, result in performing routing in a network by receiving a packet at a network node, determining whether said packet requires advanced routing services, sending a request for advanced routing information to an advanced routing services provider,

receiving said advanced routing information, and routing said packet using said advanced routing information.

22. The article of claim 21, wherein the stored instructions, when executed by a processor, further result in sending and receiving said request and said advanced routing information, respectively, over a secure virtual connection.

23. An article comprising:

a storage medium;

said storage medium including stored instructions that, when executed by a processor, result in performing routing in a network by receiving a packet and a request for advanced routing information from an intermediate node, determining a packet classification for said packet, retrieving advanced routing information corresponding to said packet classification, and routing said packet using said advanced routing information.

24. The article of claim 23, wherein the stored instructions, when executed by a processor, further result in receiving and routing over a secure virtual connection.